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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,153	09/22/2003	Keisuke Sone	JCLA12271	2981

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,153

Applicant(s)

SONE ET AL.

Examiner

Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 2,4-10 and 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,11 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/2/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

2. Claims 2, 4-10 & 12-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant elected the constant velocity joint shown in Figs. 1-8 (Group I, Species I) and timely traversed the restriction (election) requirement in the reply filed on October 29, 2004.

Specification

3. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description of the elected species fails to provide proper antecedent basis for the subject matter in claim 1, lines 17+.

Claim Objections

4. Claim 11/1 is objected to because the limitation "said receiving section" in line 2 lacks sufficient antecedent basis.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not pointed out where the following limitations are supported, nor does there appear to be a written description of the limitations in the application as originally filed:

- a. The limitation at line 2: “the center of curvature of the track grooves in the joint outer ring is located on an exterior side of the joint center”. In what appears to be a contradiction, the center of curvature 01 of the track grooves 13 in the joint outer ring 1 is described at page 14, lines 15-17 as being on an innermost side.
- b. The limitation at lines 3 & 4: “the center of curvature of the track grooves in the joint inner ring is located on an interior side of the joint center”. In what appears to be a contradiction, the center of curvature 02 of the track grooves 14 in the joint outer ring 2 is described at page 14, lines 21-23 as being on an opening (exterior?) side.

7. Claims 1, 3, 11 & 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1, line 11 recites the limitation, “an joint center”. It is not clear which of the joints recited previously this center is “an joint center” of.

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- b. Claim 1, line 11 recites the limitation, “the track groove in the joint outer ring” but it is not clear which of the grooves recited in line 3 is “the groove”.
- c. Claim 1, lines 11-14 recites the limitation, “a mouth innermost side” but does not specify to what element this “mouth innermost side” is an innermost side of.
- d. Claim 1, line 12 recites the limitation, “the track groove in the joint inner ring” but it is not clear which of the grooves recited in line 5 is “the groove”.
- e. Claim 1, lines 12 & 13 recites the limitation, “a mouth opening side” but does not specify to what element this “mouth opening side” is an opening side of.
- f. Claim 1, lines 17 & 18 recites the limitations “a region” but does not specify to what element(s) these regions are regions of.
- g. Claim 1, line 17 recites the limitation “an axial center” but does not specify to what element this axial center is the axial center of. It is not clear if this “center” is the same as, or different from “an joint center” recited in line 11.

Claim Rejections - 35 USC § 102

8. Claims 1, 11 & 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Welschhof et al, US 3,879,960.

- a. Claims 1 & 19. Fig. 1 shows a fixed typed constant velocity joint comprising: a cylindrical joint outer ring 2 having an inner spherical surface 10 formed with a plurality of circumferentially equispaced axially extending track grooves 5; a joint inner ring 4 having an outer spherical surface 11 formed with circumferentially equispaced axially extending track grooves 6 paired with the track grooves 5 in the joint outer ring 2; a

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plurality of torque transmitting balls 7 disposed in ball tracks defined by cooperation between the track grooves 5, 6 in the joint outer and inner rings 1 & 2; and a cage 8 for holding the balls 7 disposed in the ball tracks. Fig. 1 shows the centers of curvature (see also col. 2, line 50) of the track grooves in the joint outer and inner rings are axially offset (see also col. 2, line 42) by the same distance 'e'. Fig. 1 shows track groove 5 of the joint outer ring 2 has an arcuate bottom 12 in a mouth innermost side and a straight bottom 13 on a mouth opening side. Fig. 1 shows the track groove 6 in the joint inner ring 4 has an arcuate bottom 14 on the mouth opening side and a straight bottom 15 on the mouth innermost side. Fig. 1 shows the joint outer ring 2 has a rear open end that has an inner diameter that is larger than an outer diameter of the joint inner ring 4. Fig. 1 shows an inner diameter surface 9' of the cage 8 is a surface having a shape such that the region located forwardly of an axial center is capable of controlling the forward movement of the joint inner ring (relative to the cage) while the region located rearwardly of the axial center is capable of allowing the axial movement of the joint inner ring (relative to the earth).

b. Claim 11. Fig. 1 shows a stem shaft 1 is fixed to the rear open end of the joint outer ring 2.

9. Claims 1, 3, 11 & 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartz et al, US 5,453,052.

a. Claims 1 & 19. Fig. 1 shows a fixed typed constant velocity joint comprising: a cylindrical joint outer ring 1, 7, 18 having an inner spherical surface (as at element 7)

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formed with a plurality of circumferentially equispaced axially extending track grooves 10; a joint inner ring 2 having an outer spherical surface formed with circumferentially equispaced axially extending track grooves 11 paired with the track grooves in the joint outer ring; a plurality of torque transmitting balls 6 disposed in ball tracks defined by cooperation between the track grooves in the joint outer and inner rings; and a cage 3 for holding the balls disposed in the ball tracks. Fig. 1 shows the centers of curvature of the track grooves in the joint outer and inner rings are axially offset by the same distance. Fig. 1 shows track groove 10 of the joint outer ring has an arcuate bottom in a mouth innermost side and a straight bottom on a mouth opening side. Fig. 1 shows the track groove 11 in the joint inner ring has an arcuate bottom on the mouth opening side and a straight bottom on the mouth innermost side. Fig. 1 shows the joint outer ring has a rear open end that has an inner diameter that is larger than an outer diameter of the joint inner ring. Fig. 1 shows an inner diameter surface of the cage 3 is a surface having a shape such that the region located forwardly of an axial center is capable of controlling the forward movement of the joint inner ring while the region located rearwardly of the axial center is capable of allowing the axial movement of the joint inner ring.

b. Claim 3. Fig. 2 shows the outer spherical surface of the joint inner ring 24 is received by a receiving section 28 with a concave surface 26.

c. Claim 11. Fig. 1 shows a stem shaft 9 is fixed to the rear open end of the joint outer ring.

Response to Arguments

10. Applicant's arguments filed May 2, 2005 have been fully considered but they are not persuasive.

a. Applicant argues that claim 5 should not be withdrawn because it reads on Fig. 1a.

However, only Fig. 17 shows the limitations of claim 5 (see also the description at page 22, line last). The elected species is *expressly* disclosed at page 15, line last through page 16, line 5, as having structure which does *not* read on the limitations in claim 5.

b. Applicant argues that the specification objection should be withdrawn because the noted claim limitations are mentioned in the Summary of the Invention. However, those limitations are not described in the detail description of the invention. The summary is not a substitute for a proper detailed description as is clearly stipulated in 37 CFR 1.73 where it is stated that a summary "should precede the detailed description", not replace it.

c. Applicant argues that the 112(2) rejections should be withdrawn because the noted limitations are supported in the specification. However, the rejections are based on the fact that the limitations are not clearly presented in the claims. If, for example, a claim recites a "region" then in order to be clear, the claim must specify to what element, the "region" is a region of (e.g. a region of an inner ring).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U. S. Patent Nos. 4,608,028; 5,549,514 and 5,616,081 each show a fixed type constant velocity joint.

12. This application contains claims drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

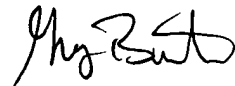
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
Art Unit 3679